

A NEW SPECIES OF ELEODES FROM NORTH-
EASTERN ARIZONA

(Coleoptera, Tenebrionidæ)

BY FRANK E. BLAISDELL, SR.

*Stanford Medical School and Associate in Research, California
Academy of Sciences, San Francisco, California*

In 1933 the Ansel Hall Expedition into north-eastern Arizona and south-eastern Utah, collected the interesting species of *Eleodes* which is described below.

Eleodes (Melaneleodes) *halli* Blaisdell, new species

Form ovate, widest across middle of elytra, in the female slightly more than twice as long as wide. Color black and dull in luster, under surface of body somewhat shining and polished. Punctuation quite strong and moderately dense; elytra densely punctato-muricate, punctures with short blackish or brownish inconspicuous hairs.

Head moderate in size, not quite as wide as pronotal apex, widest across eyes and there twice as wide as long before post-ocular line; sides not prominent, margins moderately arcuate over antennal insertions, thence straight and convergent, continuously so with sides of epistoma, the latter broadly and feebly emarginate at apex, angles rounded. Frons nearly plane, slightly convex laterally and feebly declivous against eyes, sutures obliterated; densely punctate, punctures moderately small, slightly coarser apically on epistoma; labrum slightly convex, side arcuate, angles well rounded, apex not widely emarginate at middle. Eyes transverse, short, upper lobe slightly larger; broadly and feebly emarginate anteriorly. Antennæ long, extending about three segments beyond pronotal base, last three segments slightly wider than the preceding, second segment short and annular as usual, one-fourth as long as third; the latter elongate and subcylindrical, four times as long as wide at apex; segments four to seven inclusive subequal in length and width, feebly obconical and about two and one-half times as long as wide; eighth obconical and a little longer than wide; ninth and tenth irregularly subspherical, about as long as wide; eleventh slightly narrowed apically and not quite twice as long as wide.

Pronotum subquadrate, about one-sixth wider than long; apex truncate, very finely beaded, bead interrupted at middle, angles obtuse-angular and slightly blunt; sides moderately arcuate, widest just before middle, thence straighter and convergent to base, very slightly sinuate; base in width equal to pronotal length and about one-sixth wider than apex, moderately and broadly arcuate, marginal bead rather fine, angles obtuse and scarcely rounded. Disk feebly convex centrally, gently and arcuately declivous in about lateral sixth, marginal beads not visible from above, quite obsolete on basal sinuation; densely punctate, punctures slightly larger than on head, denser laterally and well separated centrally.

Pronotal sides and sternum densely punctato-rugose.

Elytra oval, obtusely pointed apically, about one-half longer than wide and two and one-half times as long as pronotum; base scarcely wider than pronotal base, feebly emarginate and adapted to that of pronotum, humeri obtuse-angulate, their surfaces slightly concave to receive the pronotal basal angles, scutellum transverse, small and arcuate at apex. Sides broadly, evenly arcuate, most convergent in apical fourth, apex narrowly rounded. Disk rather strongly convex, arcuately declivous laterally and somewhat abruptly inflexed; apical declivity arcuately oblique, almost vertical; surface very densely muricato-punctate somewhat as in *Eleodes tricostata* Say, but with murices smaller and similar throughout and more or less confluent, each bearing a short, blackish setiform hair from its puncture, striæ of punctures more or less distinct and feebly impressed, intervals narrow and very feebly convex, becoming most so laterally and on apical declivity.

Sterna and parapleuræ more or less rugoso-punctate.

Abdomen moderately convex, glabrous and shining, sparsely punctate, punctures small, surface more or less irregularly rugulose. First segment on median line equal to combined lengths of fourth and fifth; second segment equal to third and fourth together, fifth as long as fourth and a little shorter than second. *Legs* moderate in length and stoutness. Metatibiæ about as long as their femora; metatarsi two-thirds as long as their tibiæ, moderately slender, first segment of each equal to combined lengths of second and third, also equal to length of fourth; second and third segments equal to each other, each quite twice as long as wide at apex.

Male. Narrower. Antennæ relatively long. *Abdomen* impressed on middle third of first three segments.

Female. Wider, elytra more oval and more or less slightly inflated. Antennæ shorter and the abdomen more evenly convex.

Measurements of types. Male: length: 14 mm.; width, 5.5 mm. Female: length, 13.5 mm.; width, 6.5 mm.

Holotype, female, No. 5172, and allotype, male, No. 5173, in the collection of the Museum of the California Academy of Sciences. The female was collected at Kayenta, Navajo County, Arizona, 20 miles WNW, on June 27, 1933, at an altitude of 8200 feet, by H. N. Hultgren. The males were secured at Kayenta, 15 miles WNW on June 24, at an elevation of 7200 feet. Three specimens studied: two males and one female; one male a paratype.

Halli is a member of the Quadricollis Section of the subgenus *Melaneleodes*, to which it belongs by reason of the enlarged inner protibial spurs; it is particularly related to the species of the Humeralis Group, by its dull luster and more or less asperate elytral sculpturing; the sculpturing is somewhat similar to that of *tricostata* Say. The elytral setiform hairs arise from the punctures near the tips of the prickles or murices.

In *humeralis* Lec. the elytra are less convex on the disk and the sculpturing is very densely and rather finely, muricately punctate or almost granulate. In *halli* the asperities are distinct murices and not granules.

In *concinna* Blais. the elytra are less asperate and the sculpturing consists of less densely placed muricate granules that are shining at their summits. This species is the form *granulato-muricata* of the author's Monograph.*

In *coloradensis* Blais. (see *humeralis* Lec. forma *tuberculo-muricata*, Monograph,*) the form is robust with the elytra subtuberculately muricate mainly laterally and apically.

Halli is most closely related to *fuscipilosa* Blais. from Utah. It differs, however, in its more convex and fusiform-ovate form, striate elytra with the intervals more or less convex, especially on the sides and apical declivity. In both species the sculpturing is similar, the setiform hairs arising from the muricate punctures are longer, coarser and fulvous in color in *fuscipilosa* and the elytra are less convex dorsally, more broadly oval and rather more abruptly inflexed laterally, the striae not impressed as in *halli*.

*Blaisdell, F. E. A monographic revision of the Coleoptera belonging to the Tenebrionide Tribe Eleodiini inhabiting the United States, Lower California, and adjacent islands. U. S. National Museum Bull. 63, pp. xii+524, 13 plates, 1909.